

EU was asked to review monitoring data from several ships to in situ burns and dispersant episodes to answer the question: are emissions from in situ burns and dispersant spray events reflected in VOC data from the air monitoring?

Data assembled:

- Available data from in-situ burns including date, start times, durations, and locations.
- Monitoring data from each of 15 ships, with times, but no locations. Three ships were dropped from the data because they reported no data on days that burns occurred.
- Requests have been made for location data from the ships. So far no positive responses have been received.
- All available burn times (comprising 10 burns over a period of about a week) have been plotted with the VOC monitoring data on a time line. See attached graphs for each ship. OSHA PEL (10 ppm) has been included as a health based reference point.

Conclusion:

Some instances of correlation between burns and spikes of VOCs is apparent, but there are many instances of spikes VOCs not related to burns

Other relevant information:

- In reviewing various data and reports, EU has learned that two of the monitoring ships for which VOC data has been reported, DD2 and DD3 are actually the relief wells. It seems likely that we can get their locations and then compare at least two of the fifteen data sets to the burns. It is possible that some of the other “ships” are actually wells and, therefore, fixed points.
- Monitoring from several ships indicated the presence of a large peak of VOCs on and around June 3rd. Some effort is necessary to understand what events in the operations area caused this (e.g., weather conditions, in situ burns, dispersant release, ships traversing areas of volatile-rich surface areas).

Recommendation:

- Continue to pursue data for other monitoring ships, with help from command if necessary.
- Determine the location of the ships on the days of the burns.
- Determine the locations of the ships on specific dates to correlate the locations, VOC readings and burn dates.